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**Volume 1: *The Future Security Environment***

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## *Foreword*

Threats to America's security and prosperity still exist. The Cold War has transitioned to one of regional instability, fueled by ethnic, cultural, territorial, and resource rivalries. The challenges we envision for the next century require a certain type of military—one which is smaller, more efficient, more agile, more expeditionary in nature.

Due to the complexities we see in our future operating environment, we see no abatement in our operations tempo. We need to structure ourselves to meet these demands and change how we do business. We need to evolve as a Service on several fronts:

- *Making the hard decisions regarding modernization as we progress toward a seamless aerospace force.* In our role as the leader in space, we will continue to mature in the organizing, training, and equipping of our space forces.
- *Developing the processes, the structure, the procedures, and the mindset to be an expeditionary aerospace force.* It means having a force that is light, lean, and lethal.
- *Becoming more efficient through competitive outsourcing and privatization while maintaining present capabilities and readiness.*

Through these tumultuous times, taking care of our people is still our top priority. We will continue to work to improve pay, housing, medical and community support services, as well as decrease the stress of deployments. As we move into the 21<sup>st</sup> century, it will take leadership and cooperation at all levels of government and industry to mold our Air Force for the national security demands of the future. We have the finest people and the greatest potential to be a dominant power for our nation's peace and prosperity both for this generation and those to come.

*Michael E. Ryan, General, USAF  
Chief of Staff*

*F. Whitten Peters  
Acting Secretary of the Air Force*

## **AIR FORCE STRATEGIC PLANNING**

*Global Engagement: A Vision for the 21<sup>st</sup> Century Air Force* provides a coherent, shared vision of the United States Air Force. It describes our core competencies and core values. It is what we are all about and where we are headed. In charting the course for the future, the vision is the first step in Air Force planning. Air Force planning, from a broad perspective, encompasses two major elements: organizational performance planning and future capabilities planning.

**Organizational performance planning** is aimed at enhancing the performance of near-term mission essential tasks. Organizational performance planning "operationalizes" quality by establishing Air Force goals, aligning tasks to mission and establishing performance priorities. Air Force Goals and Air Force Tasks are the key actions the Air Force will take to improve the performance of mission essential tasks. Performance measures assess how well we are accomplishing mission essential tasks in support of Air Force goals. Subordinate organizations (MAJCOM and Wing) develop their own strategic plans, which support the Air Force-level strategic plan by identifying their own measurable tasks to focus on. Those goals will also operationalize quality by improving the performance of the organization's mission essential tasks.

**Future capabilities planning** is aimed at developing the future capabilities the Air Force needs to achieve its vision. At the heart of future capabilities planning is the Air Force Modernization Planning Process (MPP), which takes the strategic direction and planning priorities from the Air Force senior leadership regarding capabilities development and prepares implementation plans to achieve that direction.

Both organizational performance planning and future capabilities planning are steered by the *Air Force Strategic Plan* (AFSP). The Planning, Programming, and Budgeting System (PPBS) integrates the *Air Force Strategic Plan*, the *Annual Planning and Programming Guidance* (APPG), and the *Program Objective Memorandum* (POM). Each of these documents plays a critical role in turning the *Global Engagement* vision into reality. The AFSP prescribes areas of emphasis and objectives for use by Air Force planners at all levels. The APPG links planning priorities with the resource allocation process by providing programmers with programming guidance and priorities for capabilities to be included in the POM build and the budgetary process. The end result, as illustrated to the right, is a series

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of coordinated and integrated "cascading effects" that begin with the *Global Engagement* vision and the *Air Force Strategic Plan*.

### **AIR FORCE STRATEGIC PLAN**

The *Air Force Strategic Plan* is comprised of four distinct, but closely integrated, volumes:

Volume 1 – Future Security Environment

Volume 2 – Air Force Mission Performance Plan

Volume 3 – Air Force Capabilities Investment Plan

Volume 4 – Exploring New Challenges, Opportunities, and Concepts

Each volume uniquely contributes to the implementation of the Air Force vision and supports the Air Force mission through its emphasis on critical issues that affect the total force. Volumes 1, 2, 3, and 4 are published separately.

#### ***Volume 1: Future Security Environment***

Volume 1 provides the security environment framework and common planning assumptions that should serve as a basis for all Air Force planning. This volume defines the future security environment in which US forces will have to operate. The volume also describes various areas that will challenge the efficiency and effectiveness of the future Air Force and prescribes general task-oriented capabilities that the future force will need in order to successfully meet those emerging challenges. The volume concludes with identification of specific regional threats within the future security environment (classified annex).

#### ***Volume 2: Air Force Mission Performance Plan***

Volume 2 establishes Air Force-wide goals, Air Force tasks, and performance measures and standards to improve organizational performance and "operationalize quality." The goals contained in the Mission Performance Plan will serve as a beacon to which the MAJCOMs, FOAs, DRUs, and other subordinate units can align their strategic plans. This volume employs a *plan, perform, measure, and improve* approach to operationalizing quality and addresses the requirements for goals, objectives, and performance measures to support the legislative requirements of the Government Performance Results Act (GPRA).

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### ***Volume 3: Air Force Capabilities Investment Plan***

Volume 3 provides authoritative direction to develop future Air Force capabilities. It captures "strategic direction" decisions from senior leadership and identifies the capabilities necessary to prepare the Air Force to meet future demands and to implement the Air Force vision. The Capabilities Investment Plan also establishes specific operational end states and defines milestones for their accomplishment near-term, mid-term, and long-term planning periods. In addition, Volume 3 provides the Science and Technology (S&T) community with the direction necessary to focus S&T investment over those planning periods.

### ***Volume 4: Exploring New Challenges, Opportunities, and Concepts***

Volume 4 provides senior leadership guidance for the Air Force as it plans to meet the military challenges of the 21st century. This volume defines the planning agenda by identifying issues of strategic importance for senior leadership consideration and decision making during the planning cycle. In essence, Volume 4 generates strategic direction. Volume 4 also fosters innovative approaches to the employment of air and space power and helps guide long-term S&T investment by identifying promising concepts for future capabilities and high-leverage technological opportunities.

## **THE FUTURE SECURITY ENVIRONMENT**

### **INTRODUCTION**

This volume delineates tomorrow's challenges for planning. It constitutes the strategic framework against which near and mid term capabilities should be designed, and serves as a road map for further development of long-term strategic planning goals in the overall *Air Force Strategic Plan (AFSP)*.

The strategic environment of the next 25 to 30 years will be shaped by a combination of political, economic, technological, and social trends as well as more specific military and strategic developments. Together, they will produce strategic conditions that will drive planning over the near (end of FYDP), mid (2013), and long-term (2022). To meet these conditions effectively, the planning process must be guided by US objectives, interests, and policies as reflected in national security and military strategies, joint planning documents, and service documents.

This assessment is not intended as a point prediction of the future. However, there is a certain broad spectrum of global security futures that are reasonable to expect. Chance events will always occur, and developments can unfold in ways we would not expect and cannot foresee. Moreover, low probability or completely unpredictable events—wild cards—could alter or further complicate existing planning assumptions. We face a dynamic strategic environment, one in which change will be a defining characteristic. Uncertainty inevitably will remain a factor in planning. Nevertheless, this volume seeks to provide a reasonable and plausible depiction of the direction of change and the challenges the Air Force must meet to make its unique contribution to the Joint Force Team.

This volume contains four sections. Section I on the Demands of the Geo-Strategic Environment examines the broad trends that characterize, shape, and define the future security environment in which US forces will operate. Section II on the Demands of Strategy examines the basic planning assumptions and national strategies that guide US military planning and operations. Section III on the Demands on the Future Force addresses various factors that will challenge the efficiency and effectiveness of the future Air Force. Section IV on Future Force Capabilities prescribes general task-oriented capabilities that will be needed in order to address the emerging challenges of both the internal and external security environments. Finally, there are two annexes to Volume 1, the first of which is attached. Annex 1 contains matrices depicting threat implications over the three planning horizons and the desired future force capabilities based on those implications. The second annex will be published separately and contains classified scenarios describing future operating environments across the three planning horizons.

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Thus, Volume 1 of the *Air Force Strategic Plan* delineates the security environment framework on which subsequent volumes are premised. This linkage ensures that specific operational and functional capabilities are directly associated with specific Air Force requirements. Moreover, Volume 1 provides the foundation for future planning efforts.

## SECTION I: DEMANDS OF THE GEO-STRATEGIC ENVIRONMENT

*This section reviews so-called "external" demands that will affect US strategic planning over the next several years. How these major trends will unfold and interact cannot be precisely foreseen. The emerging threats and challenges to US security are likely to be complex and variable. There almost surely will be surprises. However, the combination of "external" demands will have a pervasive and continuing impact on global developments and the shape of the future strategic environment.*

### SIGNIFICANT TRENDS

#### *Political/Economic/Social Trends*

**Demographic Trends Will Create Pressures.** Although the rate of global population growth is predicted to begin to level off over these planning horizons, world population will increase by an additional 2 to 3 billion people by 2025. Approximately 90 percent of population growth will occur in developing countries. Urbanization will expand, the number of mega-cities will increase, and almost all of these cities will be in developing countries. Coupled with aging societies in the developed world and a ballooning work force in the developing world, population growth will stress resources, space, and social and political stability in many parts of the world.

**Global Economic Growth and Interdependence Will Continue to Expand.** The increasing commonality of market-based economics will fuel continuing global economic expansion and will foster increasing economic interdependence. Regional economic blocs will continue to develop but probably will not dominate the global market. Global wealth will increase sharply but will be unevenly distributed among different regions of the world, between different countries, and within societies. The gap between the haves and have-nots will narrow in some cases but widen in others. Over a billion people worldwide will remain mired in deep poverty. Global information will make the world's poor well aware of their relative economic status, exacerbating their discontent. Developing countries will experience the fastest economic growth rates as advanced technologies are introduced into the economic infrastructure. Growth rates, however, will decline over time to the average levels of today's developed world. For at least the next couple of decades, the shift of a growing proportion of global wealth to Asia and especially East Asia will continue.

**The Global Environment Will Face Accelerating Stresses.** Pressures on the environment will grow, threatening resource availability in many areas and reducing the quality of life for many people. Environmental damage, including



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natural and manmade disasters, may surpass the developing world's ability to cope as resources and technologies will remain in comparatively short supply. The developed countries will continue to make progress on some environmental issues, but will remain significant polluters and face greater pressure to accept international environmental regulations. International cooperation will grow despite resistance in both the developed and developing world. Environmental degradation will enhance other social and political stresses as sources of instability, especially in poorer countries of the developing world.

**Pressures on Energy and Other Natural Resources Will Mount.** Barring the emergence of alternative major energy sources, oil and gas will remain critical resources. Almost all countries will remain dependent on imports for at least part of their oil and gas needs, a continuing source of potential international friction. Fresh water will become an increasingly critical resource in many regions and countries because of economic development and expanding population.

**The Global Surge of Identity Politics Will Continue.** Ethnic and religious enmities will remain potent sources of communal and interstate conflicts and frequently exacerbate broader political, economic, and social pressures as causes of instability. Most conflicts will occur within societies, especially in countries where artificial boundaries were set during the colonial period, but often they will spill across borders. Ethno-religious rivalries will feed extreme nationalism in some cases and contribute to tension and potential conflict between states. They also will provide a major source of non-state political, military, and terrorist activity.

**The Number of International Actors Will Grow, and Their Influence Will Increase.** The nation-state will remain the most important actor in global affairs but will share the stage with an increasing number of other actors and exercise relatively less control over developments. On the one hand, regional organizations will have more influence as states combine to meet new challenges and, as with the European Union, national sovereignty devolves into supranational authority. On the other hand, the number of international and other groups having an impact on global security will continue to increase, including a vast array of non-government organizations, Private Volunteer Organizations, international corporations, terrorist groups, and criminal syndicates. Such groups will operate largely outside the framework of state-based regulations and norms. Most will be part of an increasingly dense network of peaceful global interaction; some will be driven by anti-social goals that challenge the established order. An increasingly complex international environment will result.

**The Diffusion of Technology and Information Will Accelerate.** Commercial competition and expansion will drive technology proliferation. Competitiveness will be heavily information-based. Information will be broadly available through commercial space systems and other sources. However, the producers and

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innovators of information technology and systems will remain relatively more powerful than countries that remain consumers. Other new technology fields, e.g. biotechnology and materials technology, will have growing significance for economic development and commercial endeavor. Commercial technologies will have military as well as civilian applications, broadening the access to advanced technology weapons.

**Commercialization of Space.** Space will influence nearly every aspect of the future US and world economies. As globalization of the world economy pushes for accelerated communications transfers, space systems will be particularly able to accommodate high-speed, reliable communications. Whereas early space systems served only the highest levels of the government, those of today and tomorrow will be used in every aspect of our government, economy, and military activities. From cellular phones, to currency transfers, to navigating the family van, to intelligence surveillance and reconnaissance, space-based systems will become ubiquitous tools. Producers of space systems will proliferate as the required technology becomes more accessible. Future space systems will evolve from limited builds of expensive systems toward more massed-produced, affordable systems. More systems will be available to more users at lower costs.

**State Instability and Failures Will Pose Future Challenges.** Most cases of failing states will occur in the developing world where pressures of declining income, economic dislocation, communal conflict, environmental degradation accompanied by natural resource depletion, corruption, organized crime/criminal groups, dysfunctional government, and other stresses produce political and social breakdown. In such cases, restoration of internal security becomes paramount. Potential for the spread of regional instability may exist. Large refugee flows, sometimes across borders but more frequently within borders, will often be a by-product of a failing state. They will create humanitarian emergencies and could severely strain budgets and resources in both developed and developing nations.

### ***Military/Strategic Trends***

**Proliferation of Weapons and Weapons Technology Will Continue.** Arms control measures will restrain proliferation but will not eliminate the transfer of weapons, weapons technology, and the required delivery systems. Nor will they stem the diffusion of dual-use technologies in the global marketplace. Advanced conventional weapons will become increasingly available. Non-state actors also will gain access to them. States with a surplus weapons-related, highly skilled labor force also may be willing to sell their services. The risk of proliferation of nuclear, biological, and chemical (NBC) weapons will remain significant. This is particularly true of chemical and biological weapons (CBW) because of their wide availability, relatively unsophisticated technology, and the motivation of rogue states and other actors to gain leverage from acquiring such weapons. The proliferation of missiles and missile technology, too, will continue. Technologies

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involving ballistic missiles and precision guidance and sophisticated, low observable cruise missiles could be exploited to target US forward-deployed and, eventually, CONUS-based forces or military lines-of-communication, allowing even relatively small powers to challenge the United States in significant ways. Potential adversaries now are attempting to protect weapons and weapons technology from observation and conventional attack through increasingly effective deception and hardening techniques.

### **New Weapons Technologies Will Alter the Shape of Future Battlefields.**

Information technology combined with others like precision guidance and tailored munitions increasingly will move to the center of military power. Digital information is becoming rapidly integrated into all aspects of military activities and will be avidly exploited by potential adversaries. Innovations in the field of micro-technology, biotechnology, and more exotic fields like nano-technologies will introduce new opportunities for many countries to acquire and exploit technologies for military purposes. Breakthroughs in directed energy weapons also could have profound strategic implications.

**Military Uses of Space Will Grow.** What started primarily as capabilities to warn of or deter nuclear war has evolved through Desert Storm to support all levels of war. Adversaries and allies alike will have access to space-based systems or their products. Already, some existing force enhancement terrestrial-based missions are migrating to space, a trend that is likely to accelerate. For example, force enhancement missions presently performed by AWACS and JSTARS aircraft could migrate to space-based radar systems. But despite the expanded use of space assets for military missions, US military predominance in space asset procurement is being surpassed by the commercial sector. This will continue, and, in the future, the military will increasingly buy or lease commercially developed and owned systems. Thus, the military may have little control over future commercial systems development and possibly even reduced control over commercial satellites used by the military.

### **Terrorism Will Be a Preferred Weapon of the Weak Against the Strong.**

Terrorism against the United States and other countries is apt to increase as hostile countries and non-state actors seek asymmetric means to challenge US military superiority and because open societies are readily vulnerable. Terrorism also is apt to become more lethal as small, advanced technology weapons proliferate and as terrorist groups gain possible access to weapons of mass destruction.

**International Crime Will Pose Rising Dangers.** Weakened societies and global interdependence provide fertile ground for expanding international criminal activities. Advanced light weapons and information technologies provide new tools to augment the threats and extend the reach of criminal groups. Criminal activities affect the international security environment through their baneful

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impact on societies, economic distortions with global repercussions, and increasing potential to destabilize countries.

**Humanitarian Crises Will Generate Growing Demands for US and Allied Assistance.** Major humanitarian emergencies are unlikely to diminish in number or scope over the next several decades, and there is some evidence that they may increase. Many will require international relief cooperation, and some may be sufficiently extreme to generate near or longer term threats to stability.

## THE EMERGING STRATEGIC ENVIRONMENT

### *Threats and Challenges to US Security*

**Global Turbulence.** These key driving trends suggest a world which, over the next 20 to 30 years, will be marked by parallel and conflicting pressures. On one hand, there will be sweeping progress in political, economic, technological, and social development in much of the developing as well as developed world. On the other, there will be persistent sources of turbulence that will afflict widespread regions of the globe but especially the poorest areas. In many cases, the sheer pace of change will generate upheavals as governments and societies fall short in coping with new and unexpected challenges. Even countries rapidly modernizing will be susceptible to political and social dislocations. The consequence, especially in the developing world, will be recurring instabilities within states, sometimes across borders, and possibly between states. Thus, turbulence is apt to be a defining feature of the security environment over the next several decades.

**Global Competitor.** While challenges from a variety of regional competitors in this turbulent environment are probable, it is unlikely that a single competitor capable of challenging the United States globally over the full spectrum of conflict will emerge, at least through the mid term. Consequently, global convulsions on the order of the world wars that shook the 20th century are a low probability. Radical and unexpected developments, however, such as a technological breakthrough in the Revolution in Military Affairs (RMA) by an adversary, could alter this estimate, especially over the long term. Moreover, combined or concurrent challenges by major regional powers could threaten major US global interests.

**Regional Challenges.** The potential regional challenges to US interests and security are many. Rising economic powers may aspire to regional domination. Critical variables include the thrust of internal political developments in such countries and the degree to which new wealth is directed toward the military. At a minimum, we can expect major regional powers that pursue military modernization and integrate new technologies into forces and capabilities.

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Regional rivalries will persist, and new ones may emerge. While many and perhaps most such rivalries may be contained and managed, some almost certainly will erupt into conflict with potentially far-reaching consequences for regional security. Such conflicts may affect US forces in a region. Others may not be directed at the United States specifically but could threaten US allies, coalition partners, and vital interests and carry the potential of expanding into broader conflict, thereby necessitating US intervention.

Some regional challengers may perform as rogue states, operating largely outside international norms, meddling in distant as well as neighboring rivalries, and fomenting instability in various ways.

**Non-State Challenges.** Non-state groups are increasingly likely to threaten US interests. Ethnic groups, religious factions, socio-political insurgencies, international and local criminal syndicates, and special interest groups will operate outside conventional norms and sometimes resort to violence against civilians, including large population centers, or military targets. Terrorist groups, some state-sponsored but others independent or even anti-state, will be able to obtain more sophisticated weapons and methods for causing damage and heightening intimidation. The distinction between these various groups, factions, and movements will blur, making response all the more difficult. Perceiving the United States as the largest obstacle to their goals, many terrorist groups may directly target US interests. In contrast to other regional challengers, their conduct will be less predictable and their aversion to risk more problematical.

**Domestic Challenges.** Varied threats to US national security from domestic sources will continue and could pose increasing challenges. As in the past, the US military will be called upon to support civil authorities in only the most threatening cases. Criminal activity—in illegal drugs and immigration for example—will continue to require civil and military cooperation. Terrorist activities in the United States, and their lethality, appear likely to increase. Information vulnerability, whether from terrorists, hackers, criminals, or foreign states, poses new challenges to the US military as well as civil authorities for protecting national security. Finally, the potential need of military assistance in response to domestic natural disasters appears likely to grow, not only due to the increasing frequency of events, but also because denser population and infrastructure magnify the destructive consequences of natural disasters.

### ***Possible Adversary Strategies***

The pitfalls of mirror imaging, always present in strategic planning, will intensify over the planning period because of the complexity of the emerging strategic environment. Because of dominant US military capabilities, potential adversaries will seek alternatives to force-on-force combat. They will closely observe US capabilities and tactics to exploit US weaknesses by asymmetric strategies. US

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military strategy and forces, in turn, must be prepared to respond quickly to a wide range of contingencies.

These basic propositions about adversary strategies seem likely to remain significant over the planning period:

- **Adversary asymmetric strategies** will be heavily directed toward affecting the US will, and thereby US decisions, to enter into or remain engaged in a conflict. Some state or non-state actors will resort to asymmetric means to counter US military advantages. These will include attempts to build hard or deep protected facilities, inflict heavy casualties at home or abroad, conduct acts of terrorism, target strategic lines of communication to thwart US mobility strategies, and exploit the information-rich media environment to deter US intervention or defeat US national will. The emergence of niche competitors—those countries or groups specializing in selected high technology or mass destruction weapons providing asymmetrical advantages—will increasingly challenge us, especially through the mid to long term.
- **New environments for conflict** will challenge US forces and require new capabilities and operational concepts for such arenas, as:
  - 1) **Information Operations.** The ability to develop a capacity for offensive information operations (IO) represents a special challenge for US forces utterly dependent on information. Likewise, defensive IO will become increasingly critical to the United States, our allies, and our adversaries.
  - 2) **Space.** The increased importance of space to our military, civil, and commercial interests may encourage adversaries to attempt to target our space assets. With the proliferation of commercially available space and information systems, potential enemies have the ability to quickly improve both their offensive and defensive military capabilities. We can expect a dramatic increase in the importance of offensive and defensive counterspace actions.
  - 3) **Urban areas.** Vast urban areas also could present asymmetric advantages for rogue and non-state adversaries, constituting an environment with especially difficult challenges.
- **Short-warning *faits accomplis*** could become common as future adversaries seek rapid grabs of territory or other objectives. With *faits accomplis*, where an adversary takes a presumably irreversible action, both the decision and the effort to respond become more difficult. There could even be no-warning

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attacks, such as information attacks. Short warning and no-warning *faits accomplis* place a premium on rapid response capabilities.

- Finally, future adversaries will seek to exploit asymmetries through strategies that **combine advantages** in synergistic ways. For example, the current lash-up of Russian organized crime and Latin American drug cartels will exacerbate the transfer of sophisticated weaponry to illegal drug traffickers.

## IMPLICATIONS FOR PLANNING

Numerous planning implications derive from the foregoing. The following analysis highlights major consequences that will propel change in US forces, capabilities, and operations over the near, mid, and long term planning horizons:

- **Access to Forward Bases and Ports Will Remain Critical and Become Increasingly Risky.** Forward-based forces, including permanently stationed and rotationally or temporarily deployed forces, promote security and stability, deter conflict, give substance to our security commitments, and ensure continued access. Because our security environment is ever changing it is difficult to predict where the US Air Force will be asked to operate in the future. To react in an expeditionary fashion around the world, access to forward bases will continue to be a force multiplier. Future basing strategies must continue to foster and shape current access agreements while developing new ones in response to anticipated threats and national interests. Many potential adversaries, however, will possess arsenals of weapons with longer range and greater lethality that will enable them to attack effectively installations, ports, and surface deployments in and near areas of conflict, rendering forward-deployed forces more vulnerable. Forward bases and ports also may become increasingly vulnerable if combined robust air and missile defenses fail to materialize or if adversaries begin to rely on special operations forces (SOF) and terrorist activities to achieve their goals and force unfavorable reactions from the US public. This combination of lethal weapons and asymmetric strategies offers a viable means of challenging forward deployed forces. Similarly, such attacks may impede decisions to deploy power into a region and induce regional allies and partners to deny access to US forces.
- **Space Increasingly Will Become the Essential High Ground.** The importance of access to space for the US military has already been established. We can also expect that as a larger percentage of the US economy leverages space assets, protection of space lines of communications will increase in importance. In addition, we can expect that enemies will seek to use commercial remote sensing and communications satellites, along with space-based timing and navigation data, to analyze the US infrastructure for vulnerabilities to asymmetric attack as well as to target US forces with a high

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degree of accuracy. Greater access to space systems, especially new launch technologies, will shorten significantly our available decision time.

- **US Forces Will Increasingly Operate in the Shadow of NBC Weapons.** An adversary could use the possession of NBC weapons to attempt to intimidate and impede coalition formation and solidarity; deter the granting of access to forward bases, ports, or the forward deployment of forces; and prevent optimum operational deployments. Use of NBC weapons would raise the costs of conflict sharply. The ability to deter future NBC adversaries is highly uncertain, especially rogue states willing to take disproportionate risks or entities, such as terrorist groups, with little to lose and much to gain. The threat or use of CBW in particular is likely to be a condition of future warfare, including in the early stages of a conflict to disrupt US operations and logistics flow. Because biological and chemical agents also lend themselves to covert use, prevention will remain difficult, underscoring the importance of future force protection measures and strategies.
- **US Homeland Will Become More Vulnerable.** Future adversaries may be less likely to respect the "sanctuary" status of the United States as they seek to employ strategies that exploit homeland vulnerabilities in order to challenge US military power. These opportunities may include terrorism, SOF attacks with conventional weapons, NBC attacks, or information attacks on vital US information infrastructure assets. Ballistic missile defense of the homeland will be a matter of considerable concern at least by the end of the first decade of the next century. The potential of NBC-armed missiles used against the homeland will be considerably enhanced by then. How to defend against other less sophisticated methods of delivery must be a concern of military planning as well.
- **Smaller-Scale Contingencies Will Loom Larger in Planning.** Smaller-scale contingencies (SSC) appear likely to increase in frequency, and will almost certainly become more challenging. Such contingencies encompass a wide span of activities, ranging from crisis response to humanitarian emergencies, through intervention in insurgencies, peacekeeping, and conflict prevention, to resolution. The burden of coping with SSCs usually will be shared with allies and coalition partners. But our leadership role and unique capabilities presage our frequent involvement. To improve our ability to conduct operations across the military spectrum, the Air Force will need to maintain access to a well-developed set of bases in key locations to allow the efficient transit of air power. Aircraft of all mission types are expected to transit through them. With the reduction in US overseas operating locations, and an increase in the reliance on mobility, it is imperative we develop a strategy to support intra-theater strategic mobility requirements.



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- **Deploying Forces Increasingly Will Require Responsive Resupply and Agile Combat Support.** The shift to a more rapid and decisive force projection role will require fundamental changes in the way we field and support expeditionary forces. The future force support system must assume little supply and equipment prepositioning, battle areas without well defined core boundaries or rear supply areas, and non-existent infrastructure. Our adversaries will not fight us at the time and place of our choosing, nor can we expect to have massive prepositioned supplies and forces readily available. We must be able to deploy light forces and resupply them with speed and reliability from Day 1 to sustain operations tempo, or OPTEMPO.
- **Crisis Action Planning Will Dominate Future Operations.** Future operations will be exceptionally fast paced and diverse. The deliberate planning of the past alone will no longer suffice. Planners, operators, transporters, materiel supporters, and other mission essential personnel must be empowered to adapt rapidly to the unexpected and to apply available resources to immediate high priorities of our warfighters.

### *The Wild Card Caveat*

Wild cards are unpredicted events or developments that produce fundamental changes in national security, the roles of the military, and/or the uses of military force. They lie on the periphery of planning contingencies—considered possible but, more likely, implausible. If they do occur, they are more likely to be a surprise. There is also the possibility of complete surprise—events or developments which not only were not predicted but were not even imagined or result in unintended consequences. Some examples of wild cards with major implications for US security include: the discovery or development of an inexpensive substitute for crude oil; sudden reversal of the trend toward global democracy; collapse of a major state; emergence of a charismatic world leader; rise of militias and their influence; domestic conflict over racial or ethnic differences; occurrence of widespread epidemics of severe new disease agents with the potential to undermine the stability of nation states; or the deployment of weapons in space.

From a practical standpoint, the primary issue with wild cards is determining when and how to move them into deliberate or actionable planning. The following are some planning considerations:

- Continued efforts dedicated specifically to assessing future developments, including both the probability and the magnitude of adverse impacts, to minimize the possibility of surprise.

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- Special attention to identifying hedge capabilities—plans to deal with the more likely contingencies but which can be readily expanded or adapted to accommodate wild cards.
- Development of deliberate response strategies for wild cards which are brought into the planning spectrum, ranging from committing resources to buying capabilities or developing technologies, to contingency planning, through systematic studies.

## SECTION II: DEMANDS OF STRATEGY

*This section outlines fundamental US planning assumptions and national strategies that, in a sense, generate “internal” demands on Air Force planning and operations. If the security environment changes so dramatically that any of these assumptions are rendered invalid, planning must be adjusted to reflect this altered environment.*

### BASIC PLANNING ASSUMPTIONS

**Fundamental US National Interests Will Remain Constant.** *A National Security Strategy for a New Century* highlights our three core national security objectives:

- To enhance our security with effective diplomacy and military forces that are ready to fight and win.
- To bolster America's economic prosperity.
- To promote democracy abroad.

These interests are likely to remain constant for the foreseeable future.

**Level of US Involvement in Global Events Will Continue.** In the years to come, the United States will continue to play a leadership role in world events. National strategy documents continue to support overseas presence as an important element of engagement. Active engagement will be necessary if the United States is to influence the global security environment and advance US interests. Moreover, US involvement in peacetime engagement activities helps:

- ensure access to strategic resources and facilities;
- support allies and potential coalition partners;
- deter conflict;
- enhance influence;
- maintain a posture to defeat aggression; and
- achieve national security objectives.

**US Defense Spending is Likely to Remain Constant.** Barring a major crisis, national defense spending is likely to remain constant in real terms for the near

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term. Beyond that, however, defense spending appears likely to keep pace with real growth in the Gross Domestic Product (GDP). Any increases in defense budgets associated with higher GDP may well be offset by higher wages and growth in the unit cost of weapons. Domestic and political realities, such as balancing the federal budget, will compel the Defense Department to be even more efficient in acquisition, training, and support activities.

**The United States will Maintain its Military Superiority.** The *National Military Strategy* states that it is imperative for the United States to maintain the military superiority essential to global leadership. It is also crucial that the US military remain capable of performing whatever tasks it is called upon to perform. (If defense spending were to decline significantly, the United States could lose its military superiority. To plan for such an outcome is impractical, however, and risks becoming a self-fulfilling prophecy.)

## NATIONAL AND JOINT STRATEGY

### *Shape, Respond, Prepare*

To attain national security objectives, the US military will remain actively engaged abroad and will work with partners, old and new, to build coalitions which promote peace and prosperity. They play a significant role in achieving the national objective of "enhancing security." We must be able to **shape the international environment, respond to the full spectrum of crises, and prepare now for an uncertain future.**

*Shaping the international environment* is increasingly important in an environment of growing regional instability. It is, in general, much less costly and more effective in promoting stability to prevent or deter conflict through peacetime engagement activities, of which coalition-building plays a significant part. The extent of peacetime engagement activities, however, may be limited by our force structure. Peacetime engagement also includes strategic deterrence through our nuclear triad, arms control, exercises with our allies, international military education and training, and a host of other military-to-military contacts that contribute to increasing global stability.

United States' efforts to shape the global environment cannot guarantee stability in all circumstances. Therefore, the US military must be able to *respond to the full spectrum of crises*, up to and including two major theater wars (MTWs) in overlapping time frames. The first part of "respond" is to deter aggression during crisis, for example, use of military flexible deployment options. While SSCs are likely to pose the most frequent challenge for the US military and cumulatively require significant commitments over time, major theater warfare poses the greater risk if we are not prepared. It is the greatest test of the Total Force—the combination of our Active and Reserve Components.

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In the near term, there are three particularly challenging requirements associated with fighting and winning MTWs. First, we must be able to rapidly halt initial enemy advances short of their objectives in two theaters in close succession, one advance followed almost immediately by another. Maintaining this capability is critical to the US ability to seize the initiative in both theaters and to minimize the amount of territory we and our allies must regain. Failure to halt an enemy invasion rapidly can make the subsequent eviction campaign much more difficult, lengthy, and costly.

A second challenging requirement is to be able to achieve our objectives against an adversary who employs asymmetric means of warfare, e.g., terrorism, information warfare, or CBW. Because there is an increasing likelihood adversaries might resort to asymmetric methods of warfare in the face of overwhelming US conventional strength, US forces must be able to fight and win under such conditions.

Finally, US forces must be able to transition to an MTW from a posture of global engagement. The United States will need to be selective in its global commitments. Nonetheless, since it is likely the US will continue to be involved with SSCs, it is necessary to plan for disengagement in the event that an MTW occurs. The US military also should be prepared to disengage rapidly from non-vital activities better to posture themselves to deter or defeat aggression in a second MTW.

The United States must also *prepare now to meet tomorrow's challenges*. As we move into the next century, the keys to maintaining US military superiority are: fostering innovation in new operational concepts, capabilities, technologies, and organizational structures; modernization of our forces; and positioning ourselves to respond more effectively to significant future threats. Success is largely dependent on a robust modernization program that in effect implements the RMA. The RMA marries new technologies with innovative operational concepts, doctrine, and organizations. It is also necessary to maximize cost efficiencies gained from the Revolution in Business Affairs or RBA. Efforts to revamp infrastructure and business practices must parallel work to exploit the RMA, through reengineering our infrastructure, initiating strategic planning and quality management processes, reducing top-heavy executive and staff organizations, and streamlining our support structure.

Strategic concepts govern the use of military force and forces in executing the strategy of "shape, respond, prepare." These concepts also direct how we organize, train, and equip. **Strategic agility** is the timely concentration, employment, and sustainment of US military power anywhere at our own initiative, at a speed and tempo our adversaries cannot match. It requires the US military to conduct a variety of missions across the full range of military

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operations. **Overseas presence** is the visible posture of US forces and infrastructure positioned forward or in key regions. Some forces are permanently stationed overseas to promote security and stability, prevent conflict, substantiate our allied commitments, and ensure continued access. Rotationally or temporarily deployed forces augment permanently stationed forces and provide presence where permanent forces are not stationed. Overseas presence plays a key role in carrying out our global engagement strategy. Complementing overseas presence, **power projection** aims for unconstrained global reach. It is the ability to deploy and sustain rapidly and effectively US forces in and from multiple, dispersed locations. It provides our national leaders with more options for responding to potential crises, and is accomplished in concert with our permanent forward presence. A key element of power projection is the Air Expeditionary Force (AEF), an emerging operational concept that will provide a rapid, tailored, responsive force to deal with a crisis in its initial stage. An AEF available to commanders-in-chief of unified commands will provide wide-ranging response options across the spectrum of military operations. Finally, **decisive force** is the commitment of sufficient military power to overwhelm all armed resistance in order to establish new military conditions and achieve political objectives.

### *Joint Vision 2010 and Air Force Core Competencies*

No single military Service can meet all the requirements imposed upon the US military; each is part of a joint team that requires a division of labor and role specialization to ensure effectiveness and efficiency. *Joint Vision 2010 (JV 2010)* is a conceptual template for how the US military will channel individual Service capabilities to leverage greater effectiveness in joint warfighting. Information superiority and technological innovation will transform the current concepts of maneuver, strike, protection, and logistics into four new operational concepts—dominant maneuver, precision engagement, full dimensional protection, and focused logistics. When these concepts become reality, the United States will be able to conduct decisive operations throughout the entire spectrum of military operations, a characteristic *JV 2010* refers to as "full spectrum dominance."

*JV 2010's* operational concepts rely on the contributions of air and space power and the Air Force core competencies. The Air Force's six core competencies—*air and space superiority*, *precision engagement*, *rapid global mobility*, *global attack*, *information superiority*, and *agile combat support*—are tied together by the core enablers, *global awareness and command and control*, to provide air and space power to the Joint Force Team.

- ***Air and space superiority*** is critical to preventing enemies from interfering with US operations and giving our forces complete freedom of action throughout the battlespace – the essence of dominant maneuver. This level of control greatly diminishes risks to our military and creates opportunities to shape battles and achieve war-winning advantages.

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- Other core competencies—*global attack* and *rapid global mobility*—also contribute to dominant maneuver. Our capability to engage rapidly global targets from centralized or widely dispersed sites with strategic effects describes a flexible, dominant maneuver force of global proportions. Air Force airlift and aerial refueling aircraft provide the air bridge by which the United States can support and move joint, coalition, or multinational forces for combat, peacekeeping, or humanitarian operations. Air Force global attack and mobility capabilities also are key to deterring various asymmetric actions by state and non-state actors across the spectrum of conflict.
- The Air Force's core competency of *precision engagement* supports *JV 2010*'s operational concept of the same name. We achieve precision engagement through the stand-off and all-weather capabilities of our long-range munitions and the weapon systems that deliver them, employment through airdrop of personnel and cargo, and detection of targets applicable across the spectrum of operations. An airdrop of cargo in support of disaster relief or providing the means to conduct a precisely executed non-combatant evacuation are examples of precision engagement at the low end of the operational spectrum.
- The Air Force makes significant contributions to *information superiority* through J-STARS, Rivet Joint aircraft, SOF, UAVs, satellites, etc. As the executive agent for battle management, we serve as the joint force integrator to provide future Joint Force Commanders pictures of the entire battlespace. In addition to providing key data for traditional air combat operations, information will be increasingly exploited as both a weapon and a target. In the future, battles possibly will be fought and won, or even deterred before they begin, through the application of information warfare.
- *Agile combat support* is the foundation for all other Air Force core competencies. It encompasses the processes with which the Air Force creates, sustains, and protects all air and space capabilities to accomplish mission objectives across the spectrum of military operations while seeking ways to make them more affordable, effective, and responsive to warfighting needs. Agile combat support cuts across operations, logistics, personnel, and service lines, integrating these functions to form a seamless, agile, and responsive combat support system. It will enable warfighters to reach back to CONUS to pull assets—including replacement personnel, equipment, medical evacuation services, and other materiel as needed. It also provides ready resources for immediate operations, to react quickly with optimum force support packages, and adapt capabilities to meet any basing and battlespace option in the foreseeable future.

It is incumbent upon the Air Force to plan and program for a robust and flexible force that both maintains the capability for rapid response to today's crises and

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builds the foundation to address tomorrow's threats and challenges successfully. This planning must recommend new organizational structures that establish joint and combined planning and training requirements better to prepare our forces to participate in joint and combined operations. An expeditionary aerospace force leverages *JV 2010*'s operational concepts by fully exploiting Air Force core competencies and airpower's inherent speed and flexibility in support of the joint force. Quality people, technological innovations, and a willingness to make necessary trade-offs today, while retaining the ability to respond, will ensure we remain an air and space force surpassed by none.



### **SECTION III: DEMANDS ON THE FUTURE FORCE**

*Other "internal" demand factors will affect Air Force planning. These include increased commercial competition for limited numbers of young people with crucial skills, economic requirements to rely more on the commercial sector to provide many military services, a desire to provide homeland protection, or the public demand for more military involvement in both overseas and domestic non-combat contingencies. This section discusses these institutional factors and their future effects.*

#### **TITLE 10 RESPONSIBILITIES: HOW DO WE ORGANIZE, TRAIN AND EQUIP IN THE NEXT CENTURY?**

It is the Air Force's responsibility to organize, train, and equip our air and space forces for employment by a Joint Force Commander, or JFC. Of these responsibilities, recruiting, training, and retaining the most qualified people possible is one of our largest challenges.

People are still the single most vital element of any effective military force. Despite the impressive performance of new "brilliant weapons" and the promise of high technology air- and space-based omnipresence, it is the capability, skill, ingenuity, and dedication of the airmen who operate, maintain, and support Air Force systems as well as the knowledge, courage, and integrity of their leaders that truly make the difference. The responsibilities of the Service components that nurture the warfighting expertise and specialized competency in their medium are critical to providing the trained and equipped forces a JFC needs to win.

#### **RECRUITING AND RETAINING QUALITY PEOPLE**

**Recruiting.** Attracting the best people will remain a challenge. The competition for the brightest minds and most skilled technicians in the global information-based economy will be intense. Civilian sector opportunities in the 21<sup>st</sup> Century will be more diverse than ever before. For example, as air travel continues to expand, an increasing demand for airline pilots, maintenance, and support personnel will compete directly with Air Force recruiting efforts. Expansion of information and communications-related industries and commercialization of space similarly will provide increasingly lucrative opportunities for highly skilled individuals and heighten competition for military service-age people.

Maintaining all elements of the Total Force—Active and Reserve Components and civilians—will continue to be essential to enable the Air Force to accomplish its wide range of assigned missions. Increased competition with the private sector, along with increased dependency on the Reserve Component, will cause

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the Air Force to re-visit its strategy for attracting high quality people to the Guard and Reserves. Innovative Active/Reserve Component/private sector relationships will be required, particularly in high-tech disciplines, that promote flexibility, maintain readiness, and benefit both the military and private sector.

**Retention and Quality of Life.** Retaining the right balance of experts in each specialty will continue to be a challenge. The occupational stress of military life from high personnel and operations tempo (PERSTEMPO/OPTempo), when combined with expanding competition from the commercial sector, will demand that Air Force leaders develop innovative new programs for retaining the best of the Total Force. Air Force plans to retain high quality people must focus on improving personnel programs as well as improving quality of life. Current Air Force quality of life priorities are: competitive compensation and benefits, balanced tempo, quality health care, adequate housing, sustained retirement programs and benefits, strong community support programs, and high-quality educational opportunities for members and their families. The adverse impact on our Total Force created by current high OPTempo and PERSTEMPO must be mitigated to ensure the retention of high quality people. All of these efforts will become even more important than they now are.

**Education and Training.** Adapting Air Force education and training to an accelerated rate of technological change will require these training programs to be reviewed and updated frequently. Trainers must maintain detailed familiarity with Air Force systems and basic technologies as well as those of other Services. Civilian and contractor personnel will increasingly be relied upon to perform training for non-warfighting skills. Technology is also changing the way we educate and train—distance learning programs, interactive software, and highly sophisticated simulation techniques provide many new possibilities. The education and training that is vital to maintaining the world's most skilled aerospace force and joint force combat capability will also continue to contribute to the traditional base of qualified technicians and operators in the civilian economy, upon which the Air Force, in turn, will rely more frequently.

**Core Values.** Equally important as attracting and retaining quality people will be instilling them with the values essential to a military professional. While the Air Force core values of *integrity first*, *service before self*, and *excellence in all we do* will remain the central themes of Air Force service into the next century, it will be an increasing challenge to instill these values both early on during basic training and commissioning programs, and throughout a career. In an era of commercialism, a more mobile society with less roots in home and community, and decreased personal interaction due to automation, more new recruits are unlikely to possess these values to the extent desirable in the military profession. Once in the Service, they are increasingly likely to enter a more varied, “non-traditional” workplace where military members make up a smaller percentage of the workforce. This, coupled with a growing trend toward education and training

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techniques geared to individual versus classroom learning as well as increased reliance on technology, means new recruits are more likely to find themselves in jobs where individual decision-making skills are perceived to be prized over a team approach. Such a work environment, along with potentially greater internal competition for advancement, will stress the ability of many to internalize and practice our core values. Thus, it will become even more imperative for Air Force leaders to emphasize the importance of teamwork and core values.

### **BUSINESS PRACTICES**

The Air Force should identify and adopt better business practices that reflect quality management and adhere to the philosophy that with limited resources, costs, as well as performance, are important in our decision making processes. The increasing demand for efficiency will require using less resources and generating less waste. We will need to adopt quality management practices that reflect an understanding of cost and performance. We must capitalize on Revolution in Business Affairs innovations from the private sector that can drive quantum leaps in management and acquisition reform by shifting our corporate emphasis from budget, or input management to the creation of a cost, or output management culture, that focuses on lowering the unit cost of outputs for the products and services we provide to the nation. To accomplish our mission in the future, we must become more effective and efficient, increasing our performance by reducing cycle times, response times, and resource requirements while controlling the cost of our outputs.

One of the key tools for improving our business practices is activity-based costing and activity-based management which marries the cost metric with the performance metric, allowing management to make decisions based on facts about the cost and performance of mission-related activities. Activity-based costing and management can be particularly useful in making decisions about outsourcing and privatization because it helps to accurately assess the task to be outsourced and the cost of doing so. The Air Force has begun a training program for activity-based costing and management and is committed to using this tool wherever it can help improve internal business practices.

#### **Outsourcing and Privatization**

Force structure reductions will necessitate new approaches to old functions, including increased reliance on outsourcing and privatization (O&P) of many functions parallel to commercial activities in the private sector. Indeed, national guidance and the Air Force's Vision look to O&P as important tools to achieve greater economies and produce more efficient operations. The economies found through O&P should be applied to priority Air Force needs in force modernization, readiness, or quality of life to compensate for the absence of future budget increases. In addition, privatization will produce intangible benefits

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through increased personnel stability and reduce accession costs by providing an increased quality of life through revitalization of family housing well in advance of the target date achievable through military construction channels alone.

Free of the costs of frequent personnel rotations, periodic professional military education and training, and the infrastructure associated with housing and support of military personnel, civilian contractors often can provide the same level of service at a substantially reduced cost. Staffing with long term incumbents rather than "temporary assignees" also enhances organizational health and morale. O&P as well frees uniformed personnel to focus on the Air Force's core missions, preserving the "tooth" while reducing "tail." The efficiencies of a well managed O&P program will occur regardless of the level of future defense funding. However, cost savings from outsourcing and privatization will not be immediate. In addition, up-front O&P costs, stemming from such things as personnel transitions and displacements, will marginally reduce O&P savings.

The Air Force O&P objectives make several key assumptions. The overriding assumption is that the Air Force does not fully tap the expertise and resources available in the private sector even though in many areas the best commercial firms operate more effectively, rapidly, and efficiently. Where this is the case, the role of the private sector in support of Air Force operations should grow. Innovative solutions, improved performance, and increased savings should result from the increased competition inherent in the cost comparison process as well as the long term efficiencies the private sector will bring to the Air Force's line of business.

A major requirement or consideration of the O&P program must be is that Air Force quality and readiness should be maintained or improved; meeting Air Force mission requirements remains paramount. For this reason, certain designated activities must not be candidates for O&P. The Air Force must, however, review more precisely what are inherently governmental and military functions to determine what can be opened up for private sector competition. In addition, legislation that currently protects areas from O&P may not continue, given the importance of the O&P program.

Air Force quality and readiness must be maintained or improved as a result of any O&P initiative. Its long-term success will require reorienting both Air Force policy and culture to consider O&P options as we evaluate current missions and take on new missions.

## **THE CHANGING ROLE OF THE MILITARY**

The primary purpose of the US military will continue to be to fight and win the nation's wars—to achieve national objectives by force, if necessary. The clear

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ability to defend US interests exemplified by modern, well-trained, and equipped armed forces in addition to the manifest will to use those forces deters aggressive behavior by potential adversaries. And a rapid response may deter conflict or make the difference between a quick, efficient victory and protracted, costly engagement. The future security environment, however, portends threats and challenges that normally would not be called "war."

With the possible exception of the Cold War Soviet nuclear arsenal, until fairly recently threats to national survival were seen as remote. Today, as mentioned earlier, any one of a growing array of ideologically motivated states and non-state actors could pose a very real threat to national survival. The spread of NBC weapons and of the means of their delivery—ranging from sophisticated ballistic and cruise missiles to the hold of a tramp steamer cruising up the Potomac River, the bed of a tanker truck parked in front of a federal building, or a terrorist gaining access to a public water treatment system—all present difficult challenges.

Defense against terrorism will require attention as it increasingly becomes a weapon of choice. International criminal activity is an increasing national security concern because it can cause varying effects, from economic dislocation and violence to the undermining of legitimate local governments. These effects of global criminal activity can and do extend into the United States. Although, participation of the federal armed forces in domestic law enforcement currently is prohibited by law, a specific presidential authorization or legislative changes may alter this prohibition, thereby changing greatly the future role of federal troops in such instances.

The US military has already been tasked with anti-drug operations and even to assist federal agents in patrolling the southern border. Some federal and state governmental officials are already advocating a major role for the Reserve Component to counter anti-terrorist activities and for a larger commitment of federal troops in anti-drug and border patrol activities. Pressures for the use of military forces in such non-traditional roles is building in some elements of the congressional leadership as well as the general public.

## **SECTION IV: FUTURE FORCE CAPABILITIES**

*This section examines the operational capabilities required to meet the challenges across all three planning horizons. It does not, however, try to identify specific weapon systems or weapons technology necessary to accomplish operational tasks.*

**Protect Forces that Deploy to Theater.** Forces either permanently or operationally deployed or moving into a hostile or potentially hostile environment should be protected from the full range of potential threats, including manned and unmanned aircraft, ballistic and cruise missiles, conventional land and naval forces, environmental and occupational health and safety threats, and terrorist and paramilitary attacks. Disease and non-battle injury in every war our nation has fought has caused many more casualties than participation in combat. The potential threat of NBC weapons makes force protection, surveillance, and detection much more critical. The complexity of these threats mandate an Air Force trained in the skills necessary to survive, to operate, and to protect critical resources. In addition, a dedicated and secure alert force must be capable of rapid, worldwide deployment.

The requirement for rapid, worldwide deployment will impact significantly time-phased force deployment data and basing decisions, and is of particular importance to future planning efforts. Bulky and complex air and missile defenses require a significant percentage of available air and sea lift resources that displace other cargo. In addition, these systems' associated personnel displace other personnel used to meet offensive and support requirements. To operate in such a threat environment requires careful base selection. At times, a less than ideal location for operations will provide the best protection. Units will have to train, equip, and operate in chemically and biologically contaminated environments, which can make some sustained tasks difficult. Chemical detection and decontamination of equipment, including aircraft, is imperative to mobility operations. The United States must also be prepared to protect allied regions and forces from NBC weapons as a cost of regional alliances as well as forward deployment of our forces.

In addition to passive defense and intelligence measures required to survive and operate effectively in a chemical or biological environment, counterforce and intercept capabilities must be enhanced to counter the growing threat posed by missiles and hard or deeply buried targets and to neutralize NBC effects. The best deterrence against use of missile launch systems is a stand-off capability to destroy the missiles either before launch (counterforce), or as soon as possible after launch (intercept), while they are still over the adversary's territory. Collectively, these capabilities enhance the likelihood that NBC weapons use will be deterred.

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**Prepare for Homeland Defense.** As mentioned earlier, homeland defense is likely to become increasingly important across the planning horizons. Planning for such new capabilities as national missile defense will be a high priority in all three. Commercially available space system-derived intelligence, surveillance, and reconnaissance (ISR) products will make potential adversaries progressively more knowledgeable about US homeland as well as theater targets. The relative importance of the terrorist threat within the United States is difficult to predict but must be on the planning agenda. Defense of the nation's information environment also will become increasingly important as sophisticated communications and computer equipment and software become more and more available to the general public and potential adversaries. The ability to counter the vulnerability of sensitive information networks will pose a substantial challenge.

**Maximize Technological Benefits – Quality over Quantity – and Accept Associated Risks.** Near term cuts in personnel and force structure have been proposed as a means to finance the modernization required to keep the US military qualitatively "out front" of any potential adversary. A certain level of risk is thereby accepted because the near term environment is seen as posing primarily known risks on the Korean peninsula and in the Middle East but no projected peer or "near peer" global competitor.

For the mid and long terms, the US military must take maximum advantage of technological advances and associated operational strategies to retain an edge over potential opponents with quantitative and/or advanced asymmetrical capabilities and strategies as well as against the possible emergence of a true peer competitor. This approach actively seeks to replace "labor-intensive" strategies with those stressing technological solutions, reducing the need for large forces and minimizing potential casualties.

**Protect US Advantages in Space.** Space superiority will remain essential to US military strength. This will require passive space system protection; could require active protective capabilities to defend space assets; and may, in the future, require preventing hostile use of space against the United States. In addition, as a growing percentage of the US economy depends on space assets, protecting space lines of communication will become more important.

Presently, the United States is the predominant power in space; consequently, we have the most to lose if space systems are denied. As such, the US military must monitor space-based assets used by other nations and characterize the threat they may pose. Research and development must keep pace with potential threats, and lift systems must provide more rapid and assured access. It will also be necessary to develop a climate conducive to responsible corporate efforts to share payloads and deny access to those with aggressive intent. There is increasing general commercial availability of highly sophisticated space-based navigation and

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communications systems and reconnaissance and surveillance products. Until recently, these assets were restricted to advanced national defense and policy users, but in the future, many potential adversaries will seek access. Maintaining the US lead in space will become increasingly difficult in such a future environment.

Finally, there is the possibility—or even probability—that the security environment will be fundamentally altered when the first space-based weapon systems appear. The proliferation of space capabilities, diffusion of space knowledge and expertise to a wider array of actors, and the realization of the advantages that space confers has raised the ante. While US policy currently prohibits placing weapons in space, no decision to deploy such a capability has been made. Sooner or later, the concept of space as a weapons-free sanctuary will be challenged, either by the United States or another nation. The US military should consider how to deal with that eventuality and make the requisite investments. Because many counterspace strategies will require policy and potential treaty changes, this lead time must be reflected in planning and programming.

**Information Superiority.** Information superiority is becoming as critical as dominating the air, land, sea, and space environments. Additionally, it is an indispensable and synergistic component of air and space power. Throughout history, whoever maintained the best ability to gain, exploit, attack, and defend information—and deny adversaries the ability to do the same—has had a distinct strategic advantage. The importance of information to the warfighter will only increase as time passes. Opponents with increasing access to sophisticated computer, communications, and intelligence gathering systems will challenge substantially our information superiority and will present strategic, operational, and tactical level threats through their use of information systems.

As with space and air, information superiority will increasingly require specialized equipment, training, and techniques. Thus, maintaining the technological lead in ISR as well as communications is vital to future warfighting capabilities and worth the investment required. A major focus for the Air Force is to possess eventually the ability to *find, fix, track, target, and engage* (F2T2E) anything of significance located or moving on, above, or below the surface of the earth in near real time.

**Rapid, Long-Range Operations.** Power projection, enabled by overseas presence, is likely to remain a fundamental strategic concept. For the near term we will continue to rely on forward air bases that may be at risk from terrorism and enemy missile attack. Yet, many factors are likely to drive military operational planning to greater reliance on extended-range air and space operations as a supplement to, or even in place of, in-theater operations for both wartime and SSCs. Because of these challenges, the Air Force must become more



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of an expeditionary force, to maintain the capability to project power rapidly from the CONUS and from permanent US bases overseas. As stated in *Global Engagement*:

In the future, capabilities based in the continental United States will likely become the primary means for crisis response and power projection as long-range air and space assets increasingly fill the requirements of the Global Attack core competency.

Air and space expeditionary forces enable the deployment of follow-on forces during a rapidly deteriorating crisis. By establishing initial air superiority, battlespace knowledge, a rapid halt of enemy aggression, and a strategic air mobility bridge, air expeditionary forces create the environment for effective conflict resolution.

## SUMMARY

Increasing complexities within the international environment necessitates new planning processes. No longer are the actors only monolithic states with varying ideologies, nor do threats emanate solely from fairly known adversaries. Instead, emerging state and non-state actors will challenge the United States with both conventional and unconventional strategies and capabilities.

Volume 1 of the Air Force Strategic Plan depicts the Future Security Environment facing the United States Air Force during the first quarter of the 21st century. In Section I, on the *Demands of the Geo-Strategic Environment*, the external demands that challenge strategic planning in the next century are examined.

**Proliferation of advanced technologies**, rising **non-state challengers** and actors, increased **dependency on space**, and the use of **asymmetric strategies** as an effective weapon of the weak against the strong all contain significant implications that military planners and strategists must address.

Section II, on the *Demands of Strategy*, reviews fundamental US planning assumptions and national and joint strategies that guide Air Force planning and operations. Three significant issues emerge. First, **core US interests and objectives will remain constant**. Second, the US military will enhance national security by **shaping** the international environment, **responding** to the full spectrum of crises, and **preparing now** for an uncertain future. Finally, the Air Force's **core competencies contribute to joint warfighting capabilities** by enabling exploitation of air and space power.

Section III, on the *Demands on the Future Force*, highlights internal demands that will affect the Service. At the most fundamental level, these demands influence how the Air Force will **organize, train, and equip** itself so that it can effectively and efficiently conduct its missions. They also dictate instilling **core values** in our people and creating organizational climates that support and reinforce core values, maximizing **efficient use of resources** and **defending the US homeland** against both domestic and foreign attacks.

The final section, on *Required Force Capabilities*, highlights a set of operational areas to be refined to meet the challenges of the new geo-strategic environment. They include **force protection, homeland defense, technology maximization, space advantage protection, information superiority, and long-range operations**. Each of these operational areas encompasses a set of specific, required capabilities that will help to prioritize programming needs.

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**Air Force Strategic Plan: Volume I  
Acronym List**

<i>AFSP</i>	<i>Air Force Strategic Plan</i>
CBW	Chemical and Biological Weapons
CONUS	Continental United States
F2T2E	<i>Find, Fix, Track, Target, and Engage</i>
FYDP	Future Years Defense Plan
IO	Information Operations
ISR	Intelligence, Surveillance, and Reconnaissance
IW	Information Warfare
JFC	Joint Force Commander
JSTARS	Joint Surveillance Target Attack Radar System
<i>JV 2010</i>	<i>Joint Vision 2010</i>
MTW	Major Theater War
NBC	Nuclear, Biological, Chemical
<i>NMS</i>	<i>National Military Strategy</i>
<i>NSS</i>	<i>National Security Strategy</i>
O&P	Outsourcing and Privatization
OPTEMPO	Operations Tempo
PERSTEMPO	Personnel Tempo
<i>QDR</i>	<i>Quadrennial Defense Review</i>
RBA	Revolution in Business Affairs
RMA	Revolution in Military Affairs
SOF	Special Operations Forces
SSCs	Smaller-Scale Contingencies
UAV	Unmanned Aerial Vehicle

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